

Technical Branch  
Technical Group  
Traffic Signal Series

**TRAFFIC SIGNAL TECHNICIAN**

11/03 (AIS)

**General Purpose**

Under general supervision, service moderately complex electronic or electromechanical equipment and systems.

**Typical Duties**

Participate in any aspect of installing and overhauling a variety of traffic controls and allied apparatus. Involves: Troubleshoot, repair or replace electronic, closed circuit television, clock, fiber optic, communications and infrared detection systems components and related devices and instruments. Program and implement changes to traffic signal function by utilizing traffic signals software. Re-wire and modify controllers and back panels. Lay and splice aerial and underground multi-conductor interconnect cables. Obtain field voltage readings. Perform annual preventive maintenance on traffic control equipment using various electronic and electrical testing equipment. Replace damaged traffic controllers, signal heads, standards, mast arms and wiring. Make emergency trouble calls. Bench test new equipment. Comply with safety regulations.

Serve as leadworker, if assigned. Involves: Train less knowledgeable employees in electronics repair or maintenance work processes. Recommend areas for employee skill improvement. Schedule, assign and instruct in tasks to be performed. Check work and provide guidance to overcome difficulties encountered. Provide input to supervisor for evaluation of employee performance.

Perform related incidental duties contributing to realization of unit or team objectives as required. Involves: Substitute for supervisor or coworkers during temporary absences, as qualified, by performing specific duties sufficient to maintain continuity of ordinary operations, if delegated. Provide designated support for projects or activities of other employees as instructed. Maintain simple records and write work reports. Maintain tools, equipment, materials and supplies, and keep work area orderly, safe and clean.

**Knowledge, Abilities and Skills**

- Good knowledge of solid state, electromechanical, auxiliary traffic control equipment, microwave and digital data communications systems, close circuit television systems, video and wireless vehicle detection systems, and Local Area Networks.
- Good knowledge in design, installation and maintenance of fiber optic systems.
- Good knowledge of modems, multiplexers, demultiplexers, transceivers, and data and video switches.
- Good knowledge of Texas Manual on Uniform Traffic Control Devices.
- Good knowledge of electronic control systems, practices and procedures related to traffic signal technician.
- Ability to install, troubleshoot, repair and operate electronics equipment, systems and related circuitry, and testing equipment.
- Ability to make quick and accurate field decisions.
- Ability to follow oral and written instructions, read and interpret blueprints, plans, schematics, and other construction related documents and maintain accurate records.
- Ability to maintain effective working relationships with vendors, contractors, city officials, public safety personnel, city employees, regulatory agencies, inspectors, and the public.
- Skill in safe operation and care of motor vehicle, equipment and tools, personal computer or network workstation, and generic business productivity software.

**Other Job Characteristics**

- Occasional exposure to potential physical harm, infectious disease and hazardous chemicals.
- Frequent driving through City traffic.
- Frequent exposure to adverse weather conditions.
- Frequent lifting and carrying of heavy weight objects (up to 50 pounds).
- Frequent work at heights of up to 20 feet.

***Minimum Qualifications***

**Education and Experience:** Equivalent to a high school diploma or General Education Development (GED), supplemented by a recognized one (1) year postsecondary electronics vocational training, plus four (4) years practical electronic work experience including two (2) years of installing and maintaining traffic controllers and signals.

**Licenses and Certificates:**

- Certificate of completion of electronic courses.
- International Municipal Signal Association (IMSA) Level I Certification within one (1) year of appointment.
- Texas Class "C" Driver's License or equivalent from another state.

**Special Requirements:**

- Subject to on-call during non-working hours and mandatory recall.

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Human Resources Director

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Department Head

OFFICIAL